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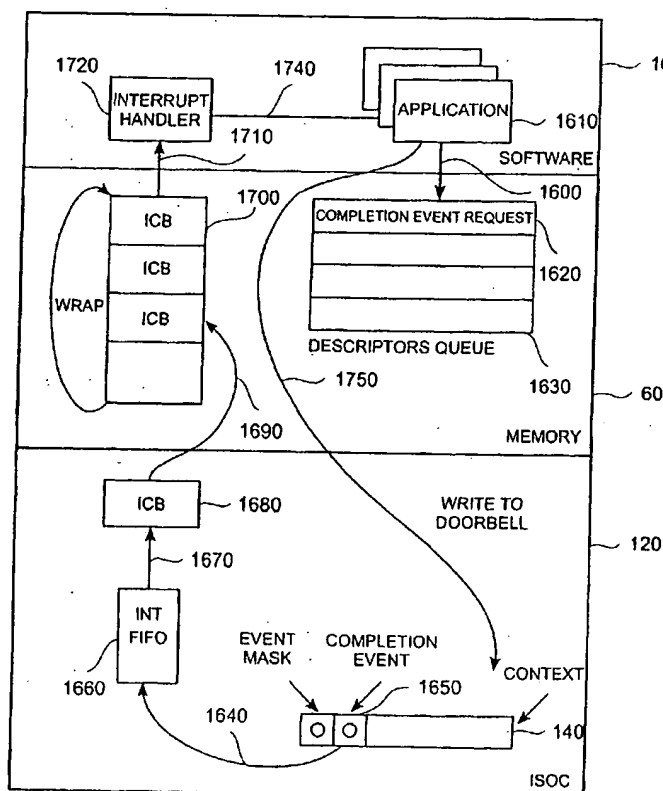
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[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR TRANSFERRING INTERRUPTS FROM A PERIPHERAL DEVICE TO A HOST COMPUTER SYSTEM



(57) Abstract: Apparatus for transferring interrupts from a peripheral device to a host computer system is described. The apparatus comprises a buffer for storing indications of interrupts generated by the peripheral device. In response to a preset condition being met, a controller generates a control data block having a payload portion, moves the contents of the buffer to the payload portion of the control data block, and sends the control data block to the host computer system.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC, IBM-TDB

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 908 830 A (IBM) 14 April 1999 (1999-04-14)	1-4,8-14
Y	column 1, line 27 - line 50 column 2, line 9 - line 11 column 2, line 53 - column 3, line 14 column 13, line 11 - column 14, line 45 ---	7
Y	EP 0 757 319 A (SGS THOMSON MICROELECTRONICS) 5 February 1997 (1997-02-05) column 1, line 50 - line 56 column 2, line 2 - line 19 column 6, line 42 - line 50 ---	7
A	US 6 122 700 A (MCCOY DEAN JOSEPH) 19 September 2000 (2000-09-19) column 1, line 1 - line 44; figure 2 --- -/--	1-16

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

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Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>US 5 319 753 A (MACKENNA CRAIG A ET AL) 7 June 1994 (1994-06-07) column 1, line 52 - line 65; figure 3 column 2, line 10 - line 25</p>	1-16

INTERNATIONAL SEARCH REPORT

Inte
Application No
PCT/IB 01/00121

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0908830 A	14-04-1999	US 5968158 A JP 11175491 A US 6233643 B	19-10-1999 02-07-1999 15-05-2001
EP 0757319 A	05-02-1997	FR 2737590 A US 6192441 B	07-02-1997 20-02-2001
US 6122700 A	19-09-2000	NONE	
US 5319753 A	07-06-1994	NONE	